



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/803,365

03/18/2004

Patrick Brant

2003B044/2

7914

7590 08/10/2007
ExxonMobil Chemical Company
Law Technology
P.O. Box 2149
Baytown, TX 77522-2149

EXAMINER

LEE, RIP A

ART UNIT

PAPER NUMBER

1713

MAIL DATE

DELIVERY MODE

08/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/803,365

Applicant(s)

BRANT, PATRICK

Examiner

Rip A. Lee

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,8-15 and 18-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30 and 32-55 is/are allowed.
- 6) ☒ Claim(s) 1,4,8-14 and 18-28 is/are rejected.
- 7) ☒ Claim(s) 3, 5, 15 and 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse in the reply filed on June 1, 2007 is acknowledged. The traversal is on the ground(s) that the restriction requirement is improper since process and product are directly related. Applicant's argument is persuasive, and accordingly, the restriction requirement has been withdrawn. Prosecution of all claims is included in this office action.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 4, 8-14, and 18-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita *et al.* (U.S. 6,143,911).

Fujita *et al.* discloses catalysts comprised of $\text{Et}(2,4\text{-Me}_2\text{Ind})_2\text{HfCl}_2$ or $\text{Et}(2,7\text{-Me}_2\text{Ind})_2\text{HfCl}_2$ in conjunction with MAO activator (claim 10, col. 6, entire (24) and (32)). The inventors contemplate polymerization of propylene with ethylene (col. 8, lines 60-65). One having ordinary skill in the art would have found it obvious to carry out copolymerization of propylene and ethylene in the presence of the catalysts described above. The reference is silent with respect to the level of ethylene incorporation by the catalyst during copolymerization of propylene and ethylene, and it is silent with regard to the properties of a copolymer derived from such a process. However, in view of the fact that the process taught in Fujita *et al.* essentially the same as that recited in the instant claims, a reasonable basis exists to believe that the corresponding product produced by the process of the prior art exhibits essentially the same properties. Since the PTO can not conduct experiments, the burden of proof is shifted to the Applicants to establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Art Unit: 1713

4. Claims 3, 5, 15, and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: Claims 30 and 32-55 are allowed. None of the references cited to date teaches or fairly suggests the process described in these claims.

Response to Arguments

6. Applicant's arguments filed March 2, 2007, have been fully considered but they are not persuasive. The rejection at hand is based on two factors: whether one skilled in the art would find it obvious to use the catalysts described in Fujita *et al.* to make propylene/ α -olefin copolymer, and specifically, propylene-ethylene copolymer and whether such a process results in the formation of polymer having the recited properties. It is the examiner's position that the former is obvious especially in light of the fact that the two catalysts shown in Fujita *et al.* meet the requisite features set forth in the instant claims. Accordingly, reasonable basis exists to believe that a process that is substantially the same will result in the formation of substantially the same product unless shown otherwise by Applicant. The burden of proof rests on Applicant to establish any unobviousness differences over the cited art. Applicant has set forth reasoning showing that polymer prepared with a different catalyst, $\text{Et}(2\text{-MeInd})_2\text{ZrCl}_2$, gives different results, but there appears to be no clear showing of unobviousness differences with regard to catalysts containing $\text{Et}(2,4\text{-Me}_2\text{Ind})_2\text{HfCl}_2$ or $\text{Et}(2,7\text{-Me}_2\text{Ind})_2\text{HfCl}_2$, cited in this and previous office actions. It is not entirely clear whether results shown for $\text{Et}(2\text{-MeInd})_2\text{ZrCl}_2$ in the patent translate directly to other catalyst behavior. In light of insufficient evidence to elucidate differences between the two inventions, the rejection of record has not been withdrawn.

Art Unit: 1713

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

ral

August 7, 2007



DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700